

# Climate Shocks and Stresses



## SA Climate Action & Adaptation Plan Webinar Burst Series

# SA CAAP Webinar Series



SA CAAP Webinar Series	
W1	Introduction to the SA CAAP
W2	Climate change mitigation, adaptation, and equity
W3	Understanding greenhouse gases (GHGs)
W4	Climate shocks and stresses
W5	The resilience dividend

# Learning Objectives



Source: San Antonio Express / Lisa Krantz

Supporting you to understand:

- How climate change will impact San Antonio
- What is at risk if no action is taken
- Key climate hazards in San Antonio and how they will impact your day-to-day life
- Strategies within the CAAP that aim to mitigate climate hazards

# Our Climate is Changing



## San Antonio 2040 climate projections

## What does this mean for you?

**-3"** Fewer inches of rainfall annually

- More frequent and longer droughts
- Reduced water and food security

**+24** Additional Days over 100°F

- Increased risk of heat-caused illnesses
- Less time outdoors on hot days

**+4°F** Summer maximum temperatures

- Increased risk of severe weather and storms
- Increased cooling costs for homes and businesses

Source: UTSA: "Future Climate Projections for the City of San Antonio," 2018

# Now is the time



Those who plan for resilience during a crisis  
do the best in recovery

**\$45 billion\***

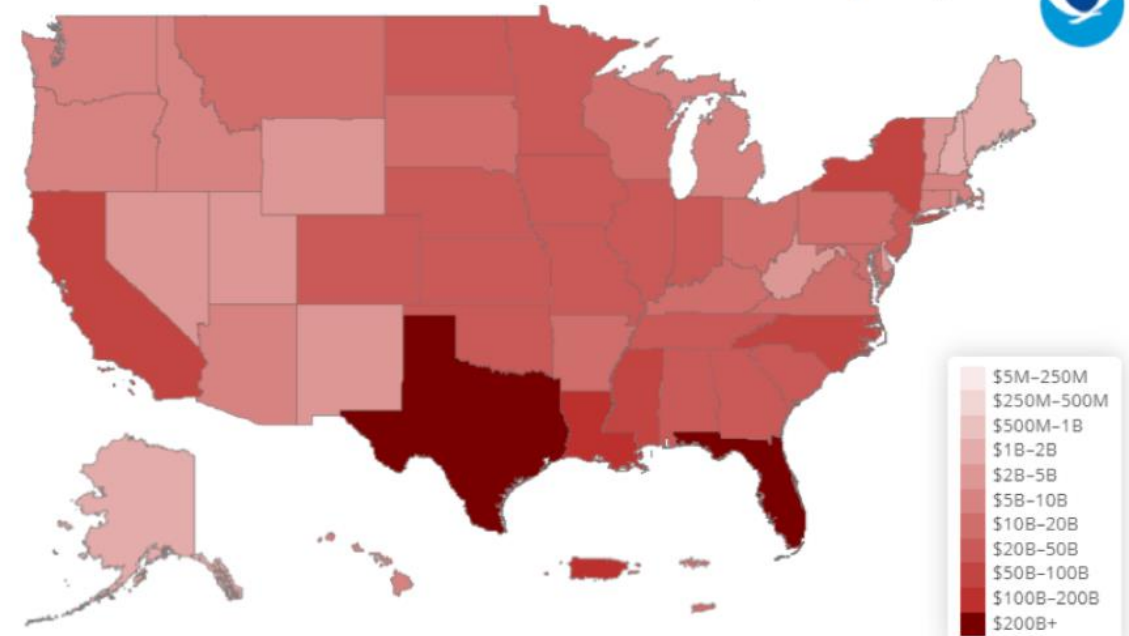
Estimated cost of US property and  
infrastructure damages associated with  
climate and weather disasters in 2019 alone

\* Value does not include cost of human health damages (source: NOAA)

**+275%**

Increase in frequency of billion dollar disasters  
from 2016-2020 when compared to historic  
average

1980-2019 Billion-Dollar Weather and Climate Disaster Cost (CPI-Adjusted)



Source: NOAA Climate.gov



# Climate Hazards Facing CoSA



Impact Areas



## Human Health



## Resilience



## Economic growth and financial stability

Climate Hazards



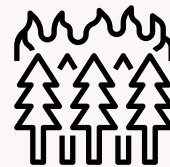
Extreme Heat



Ozone



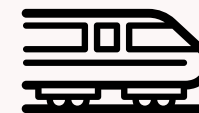
Vector-borne diseases



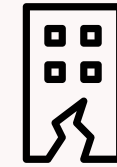
Wildfires



Flooding



Mobility disruption



Property damage



Workforce disruption

# How will this impact you?



## COST OF LIVING

- Fewer, less stable jobs from climate & resource uncertainty
- Higher cooling bills



## PUBLIC & COMMUNITY HEALTH

- Respiratory illness from unhealthy air quality
- Greater risk of heat stress, heat stroke, etc.
- Increased vector-borne diseases



## PUBLIC SAFETY

- Property damage from severe weather events
- Decreased water access and quality
- Higher transportation costs



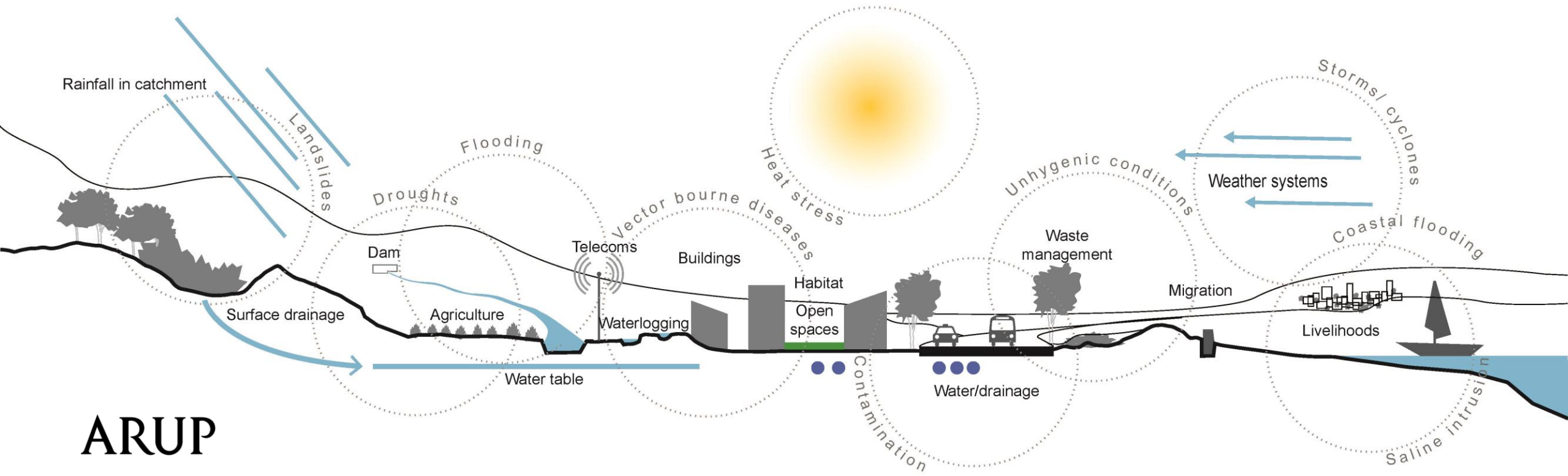
## LIVELIHOOD & WELL BEING

- Disproportionate impact on low-income and indigenous populations that are less likely to own homes or have health insurance
- Reduced food options due to drought & heat

# Cities as systems



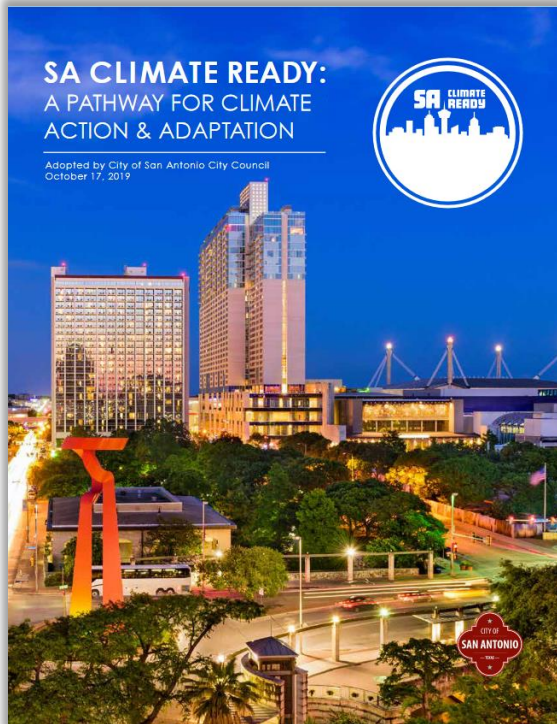
Cities rely on a complex web of institutions, infrastructure, and information. Their resilience depends on strengthening capacities of individual systems in order to strengthen the city overall.



ARUP



# Adapting to climate shocks and stressors



## 45 climate adaptation strategies

to help San Antonio prepare for and adapt to hazards associated with a changing climate

### ACTION AREAS

1. Increase infrastructure resilience
2. Strengthen public health systems
3. Enhance emergency management and community preparedness
4. Promote, restore and protect green infrastructure & ecosystems
5. Protect local food security
6. Increase resilience awareness & outreach
7. Ensure equity in adaptation

**Lean more and access the plan at:** <https://www.sanantonio.gov/sustainability/SAClimateReady>

**For additional information and resources:** <https://www.sasustainability.com>

## Immediate benefits of a resilience-based design approach

- Emergency preparedness
- Job opportunities and industry innovation
- Improved public health
- Efficiencies in transportation & food production
- Increased social cohesion
- Improved quality-of-life
- Financial security
- Preservation of cultural heritage

## The value of resilience

***Resilient thinking leading to a better San Antonio today and in the future***



# Thank you



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